BATTLE URBAN DISTRICT COUNCIL.

Report of the Medical Officer of Health for the year ending 31st December, 1897.

BATTLE,
March 12th, 1898.

MR. CHAIRMAN AND GENTLEMEN,

I have pleasure in laying before you my Report of the sanitary condition of the Urban District of Battle for the year 1897, together with some notes and suggestions of the Consulting Medical Officer of the East Sussex County Council (DR. LEONARD WILDE).

Population estimated to middle of year	3·153
Birth Rate per 1,000 of the Population	22·51
Corrected General Death Rate	9·29
General Death Rate per 1,000	11·10
Zymotic Rate per 1,000	·31
Death Rate from Phthisis	·95
Death Rate from Respiratory Diseases	1·90
Infantile Mortality : Deaths to 1,000 Births...	84·50
Deaths over 65 : percentage of total Deaths	45·71
Deaths over 65, deducting six at Workhouse from other Parishes ..	28·57

Area in Acres, 8·253. Census Population, 3·153.

Population.

The Census figures have been taken as the basis of all the calculations, since it is believed that to allow for increase in the usual way would be fallacious.

Births.

During the year, 71 Births were registered : 36 males and 35 females. Of these, 3 males were born at the Workhouse. This gives an annual birth rate of 22·51 per 1,000. That of the Administrative County being 24·1, and of England and Wales, 29·7 for 1896. The average rate during the last 10 years in Battle appears to have been 27·5.

Deaths.

During the year 35 deaths were registered: 20 males and 15 females, which gives a general death rate of 11·10 per 1,000. The average for the past 10 years appears to have been 16·3 Of the 35 deaths, 11 occurred at the Workhouse (6 males, 5 females), and of these 6 belonged to other parishes (Bexhill 1, Crowhurst 1, Dallington 1, Hollington 3). Now if these 6 be deducted from the total deaths we have a corrected death rate of 9·29, which is certainly a very low one. During 1896 the death rate of the Administrative County was 12·8, that of England and Wales being 17·1.

SENILE MORTALITY—That is, the per centage number of deaths of people over 65 of the total deaths :

(1) Including 6 deaths at Workhouse of paupers belonging to other parishes, 45·71.
(2) Excluding them, 28·57.
That for Administrative County in 1896 was 30·8.

N.B.—If a town has a Workhouse within its boundaries where many aged persons die who belong to other places, such deaths ought to be subtracted from those which occur within the district; if this be not done the mortality will appear too high.

INFANTILE MORTALITY—Of the 35 deaths, 6 were those of children under one year, and 3 of these did not survive their birth 24 hours. This gives an Infant Mortality Rate of 84·50 to 1,000 registered Births ; that for 1896 of the Administrative County being 106·3, and of England and Wales 148·0.

From a statistical point of view the mortality among children under one year of age is a very valuable indication of the sanitary condition of a locality, and of the hygienic care bestowed upon the children at the most tender age.

It is remarkable that the number of deaths from premature birth has much increased in recent years, the increase having been estimated by Dr. NEWSHOLME as high as 40 per cent.

Altmann's apparatus, shown last year at the Victorian Exhibition, is stated to have saved about 75 per cent. of premature and weakly infants in those Continental cities where it is employed.

Prevalence of Disease.

During the year only 6 cases were notified under the Act, viz. :—

Facial Erysipelas—January and March (Workhouse)	2
Erysipelas—February and November (Town)	2
Scarlet Fever—March and April (Town)	2
	6

Means of Prevention of Infectious Disease.

Practically there are none beyond isolating the patient in his own home in the ordinary manner, and when the patient has recovered, treating the room, clothes, &c., &c., as far as one can, with common disinfectants. There is no steam chamber or disinfector, no spraying apparatus, no ambulance, and no Isolation Hospital. Certainly, therefore, it cannot be said that we are in a very advanced or efficient state to deal with a severe and widespread epidemic should it attack us. Fortunately we have abundance of ozone from the ocean, and our fair share of sunshine and fresh air.

Vaccination.

As the result of an interview I had some months ago with the Board of Guardians, at which I read a summary of the findings of the recent Commission, negotiations with all the Public Vaccinators in this Union are on foot to secure the supply of calf lymph to all the infants of parents who object to have their children vaccinated with human lymph. I believe the Board are also prepared to prosecute should this course eventually become necessary in any particular case.

Measles and Whooping Cough.

Under this head the County Consulting Medical Officer, offers the following observations for consideration.

MEASLES.—No other notifiable disease yields so high a record both for case incidence and mortality, and the waste of life among children under five years of age, from this cause alone, is enormous and calls for serious consideration. The subject has engaged the attention of the Local Government Board and on the whole it does seem desirable that Medical Officers of Health should have knowledge of the occurrence of measles in households—some members of which are attending the elementary schools and if notification applied to *first* cases only, the question of expense would hardly be a matter of consideration—there is no doubt that schools play the most important part in the dissemination of the disease and in epidemic times it is only by their closure that any reduction in the number of cases notified can be effected.

The simplest way to obtain information as to its prevalence would appear to be for the head teachers to notify to the Sanitary Authorities all cases of measles coming to their knowledge among scholars attending their school.

WHOOPING COUGH.—The observations with regard to Measles, apply almost equally to Whooping Cough—a great deal of the mortality would be avoided if the disease were regarded more seriously and the patient properly nursed and kept warm.

Much injury to health of young children may occur if they are compelled to attend school at a long distance when cold and wet through, and in these circumstances it is desirable that some modification of the regulations should be made—children who live at long distances, should be exempted on very wet days.

Phthisis.

In Battle 3 deaths were registered as due to Phthisis, and 3 to Tuberculosis—this gives a death rate from Phthisis of ·95—that of the administrative county being 1·01 and the average for the last 10 years in England and Wales 1·59.

Phthisis is the pulmonary form of the more general affection known as consumption or Tuberculosis and is the cause of as many deaths in England and Wales, as Smallpox, Scarlet Fever, Diphtheria, Enteric Fever (Typhoid) and Diarrhœa put together.

If we add the other tubercular diseases it appears that about one-fifth of the human species die from these causes.

It has been shown that it is essentially a preventable disease—as preventable as smallpox or enteric fever or diphtheria—but when once established, no permanent cure has as yet been discovered, though great hopes may be placed in the development of serum therapeutics.

In view of the fact that two of the chief causes of tuberculosis are well within our preventive grasp—the ingestion of tuberculous meat and milk—it is only a question of time and of public opinion, till the slaughtering of cattle is carried out in proper premises, and under skilled supervision and more stringent regulations, with regard to inspection of milch cattle and destruction of those affected with tuberculosis, are enforced. Now that the detection of bovine tuberculosis has been facilitated by means of the tuberculin test the question arises whether Local Authorities should not require milk vendors to produce a certificate to the effect that the cows supplying the milk have been subjected to this test and proved satisfactory.

Many public institutions in the South of England, already insist upon this precaution.

Cancer.

As far as my short acquaintance with this neighbourhood enables me to form an opinion, malignant disease is not very common, one of the deaths during the year is said to be due to an intestinal tumour causing obstruction, what was its nature is not stated, but taking the age of the person, 70, into account, it may, perhaps, be fair to conclude it was, in all probability, malignant.

Lectures were delivered some time ago at the Royal College of Surgeons by Mr. Shattock, and the cause of the evil was then attributed to a certain protozoon which was deftly depicted in different stages of development, but, so far, the real etiology of the disease remains as much a riddle as ever.

From personal observation and enquiry I am inclined to believe that Cancer has some causal relation with, (*a*) traumatism or long continued irritation: (*b*) the constitution, which in early life was prone to Tubercle, but escapes this malady and reaches later years, appears more liable to develope the complaint than other constitutions: (*c*) climatic conditions, damp and ill-drained soil favour its development and possibly (*d*) a micro-parasite which thrives under one or more of the three foregoing conditions, is the actual cause of the disease.

Water Supply.

The Town Water Works are owned by the Urban Council, they consist of a pumping station, three Wells (two old, one new), and a Reservoir, from which service pipes proceed to the different houses.

The Pumping Engine is an old one of 6-horse power and built in 1853.

The land from which the Water is derived lies to the south side of the Whatlington Road near the upper end of the town.

The two "Old" Wells are close together, some five or six yards apart, they communicate freely with each other, and are 74 feet in depth, one being situated immediately beneath the engine house floor. In summer both wells are apt to get dry.

The third or "New" Well is 158 feet deep with headings going south and west, it is some 28 yards from the other two Wells and communicates by soakage with both. In dry weather this Well is the only source of the Town's supply. When water is abundant, the Wells supply some 14,000 gallons per day, but when it is low only some 4,000 gallons can be had.

The Reservoir is uncovered and situated at the highest part of Battle, it is oval in shape with sloping sides made of cement; there are no filter beds, the reservoir is cleared out every three weeks. The average depth of the water is from five to six feet, in wet weather it may reach nine feet, whereas in dry weather it may fall to about four feet.

Its capacity is indicated by the following Table.

Scale of Water in Reservoir.

DEPTH.	GALLONS.	TOTAL GALLONS.
Feet.		
12	9,840	84,640
11	9,200	74,800
10	8,720	65,600
9	8,240	56,880
8	7,760	48,640
7	7,280	40,880
6	6,800	33,600
5	6,320	26,800
4	5,840	20,480
3	5,360	14,640
2	4,880	9,280
1	4,400	

The Service pipes are iron, four inches in diameter. In the case of any sudden demand for water, as, for instance, in the event of a fire, these pipes would be too small to supply the requisite amount.

The water is turned on three days a week, viz., Mondays, Wednesdays, and Saturdays.

In dry weather, the Water supply is now insufficient, and several buildings cannot be supplied, such as Battle Abbey, the Brewery, etc., and if, as we may hope, there is any increase in the number of houses in the town, then the supply would become utterly indequate and a new source of water would have to be found, and it is quite a question if this is not almost necessary at the present time.

The quality of the Water and its chemical purity appear to be excellent, as may be gathered from the following analyses of a sample drawn from the service pipes at a point, nearly the most distant from the Reservoir.

Chemical Analysis.

2nd of December, 1897.	Grains per Gallon.
Total solid residue (dried at 120 per centigrade)	9·66
Combined Chlorine	1·70
Expressed as Common Salt	2·80
Nitrogen as Nitrates	traces only
Nitrites	absent
Saline Ammonia	traces only
Albumenoid ditto	0·002
Oxygen required to oxidise the organic matter	0·017
Hardness in degrees	4·
Lead or Copper	absent

Bacteriological Enumeration.

The sample of Water was found to contain 140 organisms per cent.

I would again suggest the advisability of periodic analyses being made so that they may be compared with one another and any departure from the normal detected.

It is very important that the land from which the Water for the Wells is derived should be under the control of the Urban Council so that it may be carefully guarded from any possible sources of pollution, and the Water supply thus protected from contamination.

Those portions of the Sanitary District which lie beyond the Town limits are supplied from Wells, and some of these have been pronounced unfit for use, and new Wells have been sunk in their place.

Sewerage and Sewage Disposal.

Three different systems of Sewerage are represented in this District.

(1.) The water carriage system.
(2.) Cesspools.
(3.) Earth Closets.

(I.) There are two separate Water systems in the Town with different outlets, and the larger number of the houses are connected with one or other of these.

(*a*) The System which drains the upper part of Battle goes to Marley, where after the solid matter has been allowed to settle in tanks, it is pumped up and the sludge allowed to dry close at hand until removed for agricultural purposes, the liquid material passes through some rubble into pipes by which it is thrown by broad irrigation alternately upon a series of osier beds, and then the effluent which appears fairly clear and sweet, discharges into a stream which finds its way into the Rother, and thence to the sea at Rye.

(*b*) The System which carries the sewage from the lower portion of the Town (the Lake) discharges into an open earth pit, close to the walls of the Duchess of Cleveland's garden, here the solid portion deposits, and is periodically cleared out by her servants, whilst the liquid material without further purification passes into a stream which goes to Crowhurst, and thence finds its way to the sea near Bexhill.

The "Villas" on Battle Hill, which are private property, discharge their solid contents on an earth slope to the south of Battle Station, the sludge being collected into a series of pitholes, whilst the overflow finds vent in the Marley stream; the liquid refuse from the Tannery is conveyed through earthenware pipes into this same stream, whilst the solids are periodically carted away.

(II.) Many of the houses in the north, west, and eastern portions of the Town, and the bulk of those situated on the south side (Battle Hill) are provided with cesspools which are emptied, when required, and the contents are mixed with earth during the winter, and the resultant material spread upon the gardens in the spring; the same method is adopted in the outlying districts.

(III.) On Battle Hill, and also in a few houses in the country, Earth Closets are attached to the houses, and the waste products are used for garden manure.

The Drains are ventilated at different points, and the flushing is done largely by surface water in rainy weather, and in times of drought by water from the Reservoir when it can be spared.

There has been no illness of late in the District that would indicate that the system of drainage is very defective, though numerous improvements of one kind and another in individual houses remain to be carried out and will, I trust, ere long receive attention. The paucity of the Water Supply in dry weather, of course, is apt to result in imperfect drain flushing.

Removal of Refuse.

Or, in one word, Public Scavenging, is carried out as follows :—

1.—Cleaning Streets, every day.
2.—Ashpits, once a week.
3.—Privies
4.—Cesspools } As required. The solid contents being mixed with soil in winter, and used as manure in spring.
5.—Earth Closets

We have no "Destructor," because the house refuse per week does not exceed some 8 or 10 cartloads on an average.

Pollution of Streams and Watercourses.

This has been referred to when treating of Sewerage and Sewage disposal.

Premises regulated by Sanitary Authorities.

The following regulations are observed here :—

1.—Dairies	Whitewash	twice a year.
2.—Cowsheds	ditto	ditto
3.—Bakehouses	ditto	ditto
4.—Slaughterhouses	ditto	when required.
5.—Factories	ditto	twice a year.
6.—Workshops	Have none.	

House Sanitation.

Many of the cottages in the town and neighbourhood are old, and sadly require attention. The outside walls lack damp-proof courses, and with the roofs and spouting, appear much the worse for wear and exposure. The inside is little better, the ceilings being low, and the rooms frequently ill-lighted, cold, damp, and close, very deficient in bedroom fireplaces and other means of proper ventilation. With such conditions it is hardly a matter for surprise that infants and old people, who are warm enough by the kitchen fire during the day in cold weather, often contract at night a fatal bronchitis whilst sleeping in a freezing bedroom, nor is it to be wondered at that many of the inmates of such dwellings are more or less crippled by rheumatism and suffer from other ailments caused by exposure to a cold, damp, and impure atmosphere.

To pull down and rebuild such cottages would, of course, be the best plan to put an end to such a state of matters, but short of this, a great deal might be done to improve their present condition, and to render the inhabitants more healthy and comfortable by concreting the ground floors and repairing the outside walls, roofs, and spouts, by adding bedroom fireplaces and back windows where absent, so as to ensure thorough ventilation, and by keeping the immediate surroundings outside dry and free from any emanations that might arise from slop water or cesspools.

Adoption of Permissive Acts and Byelaws.

Byelaws with regard to General Scavenging and Slaughter Houses were adopted in April, 1852, and have been in operation ever since.

Regulations under the Dairies, Cowsheds, and Milkshops Orders of 1885 and 1886 are in force.

The Infectious Diseases (Notification) Act, 1889, was adopted on 22nd June, 1893.

No other Acts or Byelaws are in force in Battle, but it would be advisable to adopt the Model Byelaws of the Local Government Board, with such modifications as are applicable to the Town.

General Sanitation and Administration.

All parts of the District have been inspected by myself, and much useful work has been done during the year by Mr. McQuillan, the Sanitary Inspector, who has evidently done his best to inform himself of the defects as well as the requirements of this neighbourhood.

Improvements in many houses have been effected, and as time goes on more will, no doubt, be accomplished in this direction.

I have asked Mr. McQuillan to append to this report a tabulated summary of his work for 1897.

This Report was begun in January, and I am sorry that, owing to illness, it has not been possible for me to finish it at an earlier date. In conclusion, I desire to record my opinion that for a hard-worked Medical Practitioner to be asked at the very busiest time of the year to make three copies of his Report—one for the Urban District Council, another for the County Council, and a third for the Local Government Board—does not tend to foster the production of a very full or lengthy statement of the sanitary condition and requirements of his particular district.

I have the honour to remain,

Mr. Chairman and Gentlemen,

Your obedient Servant,

WM. HAIG BRODIE, M.D., M.C., F.R.C.S., D.P.H.

Medical Officer of Health for Battle.

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Report from the Inspector of Nuisances for the year ending 31st December, 1897.

Number of	Houses and Cottages inspected	17
,,	Nuisances discovered	12
,,	Samples of Town water, tested by M.O.H.	2
,,	Samples of Well water, tested by M.O.H.	2
,,	Cottages with water laid on this year	5
,,	New wells sunk	2
,,	Old wells condemned	1
,,	Cottages disinfected after infectious disease	2
,,	New connections with main drain	5
,,	House drains pulled up and re-laid	4
,,	House drains repaired	3
,,	Inspection chambers built over main	2

The back premises of houses and cottages, also factory, workshop, bakehouses, dairies, cowsheds, slaughter houses, pigsties, and fowl houses and runs, have frequently been inspected, and found on the average to be clean.

The ashbins are cleaned out about once a week by the Council.

Three new cottages (out of four) have been built.

I remain, Sir,

Yours respectfully,

J. McQUILLAN,

Inspector of Nuisances.